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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/760,779	01/17/2001	Chao-Ming Chang	2433-4	4758

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EXAMINER

ODOM, CURTIS B

ART UNIT	PAPER NUMBER
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2634

DATE MAILED: 10/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/760,779

Applicant(s)

CHANG ET AL.

Examiner

Curtis B. Odom

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 January 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-67 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9, 16-32, 42, 49-52, 54-65 and 67 is/are rejected.
- 7) ☒ Claim(s) 1-8, 10-15, 33-41, 43-48, 53 and 66 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 January 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a) because they fail to show a second input to each correlation block (see Figs. 9-10 and pages 12-16 of the instant specification) as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to because Fig. 1 should include the term “Asynchronous”, the and the equations of Fig. 8 are not readable. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to because in Figs. 9, 10, and 15, “first block, second block, etc.” are suggested to be changed to “correlation block, delay block, etc.” as shown in Fig. 2. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be

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renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4. The drawings are objected to because the specification does not contain a reference to Fig. 15 (see pages 20-21). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

5. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

6. The abstract of the disclosure is objected to because it contains more than one paragraph and more than 150 words. Correction is required. See MPEP § 608.01(b).

7. The disclosure is objected to because of the following informalities:

- a. On page 2, delete reference numerals (for example [1, 2, 3]).
- b. On page 3, delete reference numerals (for example (1), (2.a), etc.).
- c. Throughout the specification, the phrase "output number of signals" is suggested to be changed to "output a number of signals".
- d. Throughout the specification, each sentence should end with a period.
- e. On page 7, line 12 "output number 215 of signals" is suggested to be changed to "output a number of signals 215".
- f. On page 14, line 7, "And the first block 900 in the synchronization block 220 further selectively peeking" is suggested to be changed to "The first block 900 in the synchronization block 220 further selectively peeks".

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g. On page 15, line 15-16 and page 16, lines 12-13, "outputting number" is suggested to be changed to "outputting a number of signals".

h. On page 15, lines 15-16 and page 18, lines 18-19, "outputs a plurality" is suggested to be changed to "outputting a plurality".

g. On page 24, the second paragraph is suggested to be deleted because there is no appendix on file.

Appropriate correction is required.

8. 35 U.S.C. 112, first paragraph, requires the specification to be written in "full, clear, concise, and exact terms." The specification is replete with terms which are not clear, concise and exact. The specification should be revised carefully in order to comply with 35 U.S.C. 112, first paragraph. Examples of some unclear, inexact or verbose terms used in the specification are the following:

a. The description of Figs. 3-6, 13 on pages 7-11, 17, and 19-20. The description is not written in full, clear, concise, and exact terms so that one of ordinary skill in the art would be enabled to make/use the present invention.

b. The term "peeking" is an unclear and inexact term used in the specification.

Claim Objections

9. Claims 1-67 are objected to because of the following informalities:

a. In claims 1-33, 64, 65 and 67, the numerals representing the steps are suggested to be deleted or changed to letters.

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- b. In claim 1, 26, 34, and 58 “outputting number of signals” is suggested to be changed to “outputting a number of signals”.
- c. In claims 8, 9, 11-15, and 28, “comprises” is suggested to be changed to “comprising”.
- d. In claim 10, 43, 44, 45 “is detected” is suggested to be changed to “detected”.
- e. In claim 22, 24, 33, 54, 56, and 66 “outputting number” is suggested to be changed to “outputting a number of signals”.
- f. In claim 23, 25, and 31, “comprising” should be “comprises”, “ τ ” should be defined, and the claim should end with a period.
- g. In claims 24 and 56, line 2-3, “Frequency Hopping Spread Spectrum” (FHSS) is suggested to be changed to “Direct Sequence Spread Spectrum (DSSS)”.
- h. In claim 26, line 11, delete “wherein”.
- i. In claim 31, “comprising” is suggested to be changed to “comprises”.
- j. In claims 33 and 66, “(SS)” is suggested to be changed to “(DSSS)”.
- k. In claim 55, “ τ ” should be defined, “first, second and third means” should be “sixth, seventh, and eighth means”, and the claim should end with a period.
- l. In claim 57, “comprising” should be comprises”, “ τ ” should be defined, “first, second and third means” should be “fifth, sixth, and seventh means”, and the claim should end with a period.
- m. In claim 61, “ τ ” should be defined, “the first means for further selectively outputting” should be “wherein the first means further selectively outputs”, and the claim should end with a period.

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n. In claim 64, “performing sign test” is suggested to be changed to “performing a sign test”.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

10. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

11. Claims 9, 22-25, 32, 42, 54-57, 64, 65, and 67 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The above claims recite the limitation (or a variant) “calculating a combination coefficient using the timing information...”. However, after reviewing the specification, the process of calculating a combination coefficient was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

12. Claims 26-32 and 58-64 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains,

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or with which it is most nearly connected, to make and/or use the invention. The above claims recite the limitation (or a variant) “constructing extra signals”. However, after reviewing the specification, the process of constructing extra signals was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

13. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

14. Claims 16-21 and 49-52 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The phrases “peeking other frequency bands” or “peeks other frequency bands” is indefinite and fails to particularly point and distinctly claim the subject matter which applicant regards as the invention. The above claims recite the limitation (or a variant)

Allowable Subject Matter

15. Claims 1-8, 10-15, 33-41, 43-48, 53, and 66 are allowable over prior art references (if above objections are overcome) because related references do not disclose receiving a signal containing two spread spectrum transmission schemes, obtaining timing information of the first spread spectrum transmission scheme when the first scheme is detected before a predetermined time, obtaining timing information of the second transmission scheme based on the timing

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information of the first scheme, correlating the received signal based on a plurality of modulated signals, and producing an estimated sequence carried by both the transmission schemes.

Conclusion


16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Rice (U. S. Patent Nos. 5, 463, 657 and 5, 210, 770) disclose detecting multi-sequence (signal) spread spectrum signals.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Curtis B. Odom whose telephone number is 571-272-3046. The examiner can normally be reached on Monday- Friday, 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 571-272-3056. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Curtis Odom


STEPHEN CHIN
SUPERVISORY PATENT EXAMINE
TECHNOLOGY CENTER 2600

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September 30, 2005